

Information And Communication Technology

Class six



NATIONAL CURRICULUM AND TEXTBOOK BOARD, BANGLADESH

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Information and Communication Technology

Class Six

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Preface

The aim of secondary education is to make the learners fit for entry into higher education by flourishing their latent talents and prospects with a view to building the nation with the spirit of the Language Movement and the Liberation War. To make the learners skilled and competent citizens of the country based on the economic, social, cultural and environmental settings is also an important issue of secondary education.

The textbooks of secondary level have been written and compiled according to the revised curriculum 2012 in accordance with the aims and objectives of National Education Policy-2010. Contents and presentations of the textbooks have been selected according to the moral and humanistic values of Bengali tradition and culture and the spirit of Liberation War 1971 ensuring equal dignity for all irrespective of caste and creed of different religions and sex.

The present government is committed to ensure the successful implementation of Vision 2021. Honorable Prime Minister, Government of the People's Republic of Bangladesh, Sheikh Hasina expressed her firm determination to make the country free from illiteracy and instructed the concerned authority to give free textbooks to every student of the country. National Curriculum and Textbook Board started to distribute textbooks free of cost since 2010 according to her instruction.

The government has been working hard to make the life of the people of Bangladesh easy, comfortable and cheerful by implementing the Digital Bangladesh using information and communication technology based education. So Information and Communication Technology subject has been made compulsory from class VI to XII in the National Education Policy. To give the purpose forward the curriculum and textbook have been developed. We hope this textbook will impart information and communication technology literacy to the students and develop in them a keen interest that will play an effective role in making Digital Bangladesh.

I thank sincerely all for their intellectual labor who were involved in the process of revision, writing, editing, art and design of the textbook.

Prof. Narayan Chandra Saha

Chairman

National Curriculum and Textbook Board, Bangladesh.

CONTENTS

Chapter	Content	Page no.
Chapter 1	Introducing Information and Communication Technology	1
Chapter 2	Instruments Related to Information and Communication Technology	20
Chapter 3	The Safe Use of Information and Communication Technology	43
Chapter 4	Word Processing	54
Chapter 5	Introducing Internet	64

CHAPTER ONE

Introducing Information and Communication Technology



After reading this chapter, we will be able to

- describe information and communication technology.
- describe the difference between data and information with example.
- describe the use of information and communication technology.
- explain the significance of information and communication technology.
- design a poster in your school by using information and communication technology.

Lesson 1 : Concept of Information and Communication Technology

Information and Communication are very familiar words to us. There are many examples of communication around us. But when we use the word "Information and Communication Technology or ICT", we mean a special thing. Let us now imagine about some incidents to make that special thing clear to you.

Incident 1: Masum's house is at Char Fashion upzilla in Bhola district. His father runs the family by fishing at the sea. His father always carries a radio while going to sea by a boat for fishing. One day Masum asked his father, "Oh father, why do you always take the radio?" His father answered, "If it either rains or storms at sea, I get that news immediately through the radio."



Fish is being caught in the seawater with the boat



Tasty strawberry fruit

Incident 2: Yunus, a farmer of Netrakona district, was one day watching a TV programme named "Krishi Dibanishi" in Bangladesh Television. Watching that programme he learned that a foreign fruit named "Strawberry" could also be cultivated in Bangladesh. Yunus is a very enthusiastic farmer. Working very hard for four months he cultivated strawberry in one acre of land. The yield was very good. He earned Tk. one lac and fifty thousand by selling this tasty and nutritious food. His life took a new turn from that day.



Exam results can be known by SMS

Incident 3. Shraboni appeared at the final examination in class five. Her parents thought that they would have to go school to get the result. Shraboni told her parents that her result could be known by mobile phone. For this, they will have to send an SMS to a special

number mentioning her roll no. and the name of the board. At first her parents could not believe in; but after sending the SMS, within a short time, they got a return SMS mentioning Sharabon's result. Shrabon became very happy at passing in GPA 5.00

Incident 4. The subject of national essay competition in this year was "Liberation war of Bangladesh". Rashed decided to take part in this competition, but he did not know much information about our liberation war. He is thinking how to get information. Just at that time, the idea of Internet came to his mind. He sat with a computer and downloaded much information on liberation war with his father's help from the Internet. He wrote the essay using these information and sent the essay for competition.



Information can easily be downloaded from website by using Internet



Match is being shown in big screen through multi-media projector

Incident 5. World cup cricket was being played at Dhaka. Riya and Antu demanded to their father that they would watch the world cup cricket. Their father failed to manage ticket in spite of much effort. Suddenly, he remembered that world cup cricket is shown live in big TV screen at Dhaka University. On the day of competition, father went there with Riya and Antu and thus they could watch the match in a very large TV screen. They thought as if watching the match sitting at the ground.

Several incidents have been narrated, you may think that there is no connection of one incident with the other. But if you think a little, you will understand that all the incidents are connected with one another. There is communication of information in each incident. Masum's father can have information about rain and storm from Radio, Yunus collects information on strawberry from TV, Shrabon knows information on her result by mobile

phone, Rashed gets information on liberation war from Internet and last of all Riya and Antu got information on cricket match from TV screen. Technology of any kind might have been used to transfer this information. The technology that is used in sending, receiving and storing information is called Information Technology.

You can clearly understand that information technology has not come to this stage in one day. There was a time when man could exchange information only by talking. Then man started to transfer and preserve information by writing on clay, stone and herbs. The facilities of preserving and transferring information increased when the Chinese invented paper. Information transfer took a new dimension after the invention of telephone. Information transfer without wire brought the entire world in the grip of mankind. And what is the present stage of transferring information? It's a long history to tell!

Activity

1. Make a group of four and prepare a list of new instruments mentioned in this chapter.
2. Guess the function of each instrument.



Learnt new: SMS, Internet, Multimedia, Projector, Wireless.

Lesson 2: Concept of Information and Communication Technology

There was a time when a letter written on a paper in one country took one to two weeks to reach another person in another country. These letters were written in paper and the address was written on the envelope. Then these letters were sent from one country to another either by ship, plane or train. Then these letters were sorted out and later manually delivered to concerned house or persons on the basis of address written in envelope.

Letters of this type are still written and people eagerly wait to get a letter from near and dear ones. But many techniques have now been invented to transfer information. Man can now send letters from one country to another in the twinkling of an eye by using these techniques. Not only letters, but voice, picture and video can also be sent with letters. You can say that the entire world has now come to our palm. As a man can communicate with

another man at any moment in a village, just like this the entire world has now become one village; any one can contact with any one, and from this concept the new term "global village" has been coined. Though we are not close physically, but virtually we all are very close to one another.

Everything to this effect has been possible due to information technology. The technology that has greatly helped information transfer technology to come into reality is digital electronics. That's why we sometimes call this age a "digital age". Not only this, we also say that we shall make our country a "Digital Bangladesh." It means that by using modern technology we shall make our life much more comfortable and easy and life will be full of joy without any sorrow or misery.



Digital electronics has made modern technology. This digital technology is changing the entire world

By now you have well understood what we want to mean by technology. The different instruments, made on the basis of scientific data and information that make human life easy and comfortable are together called technology. In this context, you are to remember one point; there are many technologies, which make human life miserable instead of making comfortable. There are many technologies that make our life easy but lead us towards danger by polluting our environment. Again there are many technologies that

we don't need at all, but we want to have those and thus bring danger for us.

Activity

Students divide yourselves into two groups. One group talks about good technology and the other group talks about dangerous technology, unnecessary technology and environment polluting technology.

There was a time when technology was used only by rich countries and organisations. Because all countries and organisations did not have required number of computers and ability to use and maintain those computers. At that time, a building was needed to install a computer and the capacity of that computer was very little. That big computer has now become very small in size but capacity has increased a lot. You will be astonished to know that

one would need lacs of money to purchase a computer. But now a computer with greater capacity can be found inside a mobile phone of your relatives.



A big house was required to keep the first computer of the world named ENIAC



Children are using computer

So, you can easily understand that computer has now reached at every home. The information technology that was once used only by a few big organisation and important persons is now being used by common persons. Side by side with computer, many new instruments have also been invented, newer software are being invented to use the computer and the other related instruments. Optical fibre or satellite is also being used to facilitate communication; Internet has come into being to transfer information. Information super high way has been invented to transfer information as the highways have been made for the plight of buses and trucks. In fine, information transfer from one corner to the other corner of the world has now become very easy.

Any information can be equally shared by both the most influential person and a very ordinary man of the world. So, it can be said that a revolution has started to change the world by using information and communication technology. None can tell where this revolution will lead us.

By now, all of you have got an idea about what we mean by information and communication technology. Information and communication technology means to transfer, preserve and analyse the information and then properly utilise it in our day-to-day life.

Activity

1. Make a group of four and prepare a list of technology and instruments used in the implementation of information and communication technology.
2. Attempt to write the uses of instruments described in this chapter.



Learnt new: Global Village, Virtual, Digital, Electronics, digital age, digital Bangladesh, Technology, Computer, Software, Optical Fibre, Satellite, Information Super Highway.

Lesson 3 : Data and Information

If you are told to look at the numbers 98, 100, 100, 96, 50 and 95, you will be surprised and you will try to understand the meaning of these numbers. You



Space craft Voyager 1 sent many data to the earth while traveling through the solar world.

will not understand anything whatever you try. But if you are told that these figures are the marks of Bangla, English, Maths, science, Bangladesh and Global Studies and Islam and Moral Education obtained by a student of class VI named Rimi, then the meaning of these numbers will be clear to you.

Here 98, 100, 100, 98, 50 and 95 are data. Data without any background gives us no meaning. When you are informed that these are the numbers obtained by a student named Rumi, then you will get a meaning of these numbers. Data and context together make information. If we analyse information we can gather some knowledge.

Activity

After analysing Rimi's information can we detect any knowledge?

Help: What is the name of her favourite subject? Which subject is she weak in?

Let's try to get better understanding about data and information by the help of some other examples: -

Yes, Yes, No, No, Yes, No, Yes, Yes, No, Yes

89, 70, 65, 73, 75, 50, 90, 64

19973090422183049

05.11.2000

You can find no meaning of this. But these figures will be meaningful when some event or background is added with. Before this, you have already seen that some meaningless figure, became meaningful when background was given. If you are told that these data have been taken from a list and the list is like this:

Event or Background	Data									
Ten students of your class were asked whether they brush teeth before going to bed	Nanto	Bilo	Reno	Kona	Prity	Joba	Montu	Sumi	Litu	Eti
	Yes	Yes	No	No	Yes	No	Yes	Yes	No	Yes
Rimi's birth registration number	19973090422183049									
Monto's date of birth	Day			Month			Year			
	05			11			2000			

Now the meaning of the above data has become clear to you. So we have understood that data becomes meaningful only when it is related to any event or background. Then we can use this meaning and this is called information.

Activity

1. Write some data and give it to your friend and tell him to understand the meaning. If he fails to understand any meaning, he can ask you ten questions. Questions should be such that they may be answered by saying only "Yes" or "No".
2. Prepare a list of all data about yourself.



Learnt new: Information, Data, Knowledge.

Lesson 4: The Uses of Information and Communication Technology

By now, you must have known, reading the previous two chapters that we are very lucky, a great revolution is now going on in the world because of information and communication technology. We are watching that revolution. Everything is being changed - if we wish, we can lead a new life or we can engage ourselves in the work of changing the world. If we want to do that, we shall have to know about information and communication technology. We shall have to understand how it is changing our life. When you will grow old; you will be a scientist or a technologist and you may invent new items which will develop our country and the world in the field of information technology.



You can also take part in the task of changing the world if you study Information and Communication Technology

Let's now ask an easy question; which branch of our life will be changed due to development of information technology?

Perhaps you have started to sort out the branches. Some of you will say that development of information technology will greatly change medical treatment, according to some people the answer will be "in the field of science" and to others it may be "in the case of recreation". But what is the real answer?

The real answer is - none can tell what change we are going to face in different fields due to development of information technology. This development may bring about any little or big change in the life of your known and unknown persons. Then, how will you finish telling its benefit? To tell the truth - how the

different field will be changed due to the improvement of information technology will depend on our creativity. The more creative you are, the greater will be the uses for you.

Do you know its reasons? The reason is - we transfer information by the help of information technology, and also analyse or process the information. For doing so, we need to use computer. Computer is an extra-ordinary instrument by which we can do many impossible works possible.

Once computer means like a TV monitor, a box of CPU and a keyboard to people. Now it becomes laptop which is much smaller than the previous computers. Not only that, computer becomes so smaller like notebook, tablet PC or PDA those we can put those into our pockets.

The most interesting matter is that the computer has now been installed in our mobile phone set. So, today we can do those works by our mobile phone set which we had to do before with a computer. We can even surf the Internet by our mobile set.

Let's now go back to our pervious discussion; in which fields of our life we can bring change by the help of information and communication technology. Now we will know about the changed fields.

Personal and Social Communication: At present, we can communicate with one another by mobile phone. In addition to mobile phone, we have SMS, e-mail, chatting. A great change has been made in respect of social communication. All of these facilities may not be good; many of the present generation spend too much time for making this communication; some of them think that this communication is real human communication. So some persons may become unsocial depending too much on this mechanical communication.



Today, even Internet can be used by an ordinary mobile telephone set

Recreation : Recreation also now depends much on information and communication technology. This technology is being used in reading books, watching movies, listening songs and playing games in computer. We have already seen how much this technology is used in the football and cricket matches. We can keenly watch many big matches sitting at home without going to the field.

We should be a little bit careful in using information and communication technology in the field of recreation. For the proper growth of the body, a child needs to play in the field. Many times it is seen that parents do not allow their children to play outside in the field; rather they prefer to make their children seated at homes in front of a computer for a long time. Children have more interest in computer games instead of playing outside in the field. This state of affair is not at all good for the mental development of a child. This problem is now being felt throughout the entire world.



Activity

Mention five points for and against playing games in computer

Computer game is a very favourite thing to the boys and girls of present generation; this should be limited and controlled.



Learnt new: Laptop, Notebook, Tablet, Smartphone, E-mail, Chatting

Lesson 5 : The Uses of Information and Communication Technology

We have cited two examples of Information and Communication Technology (ICT) in the previous lesson. We all are using these two examples with or without having known about them. We shall learn in this lesson about the uses of information and communication technology in some other fields.



Several thousands books can be stored in an e-book

In the Field of Education: Can you tell what is the happiest sound to a student? The answer may be different to different people, but we all know that the ringing of the final bell of school is the happiest sound to a student. When the final bell rings, all students feel relaxed and make happy sound all over the world. It is also known to them who think on education. Therefore, they try to make a student's life a bit more interesting. This task has started to become easy with the use of ICT in teaching-learning. Now, a learner needs not to listen to his teacher's lecture nor he/she is to memorise without understanding.

Many interesting items of education can now be shown by multimedia, scientific matter can be displayed in screen and even one can appear at the examination through computer without writing anything in examinations script. Now, a student has to go to school carrying a bag full of books; this will not be needed after some days. Students will be able to keep thousands of books of a Library in an e-book along with his textbooks.

In the Field of Treatment: Today we cannot think of medical treatment without using ICT. In previous time, doctors had to minutely diagnose all symptoms of a patient before detecting disease. Now diagnosis has become easier by the help of modern instruments. Not only this, all particulars of a

patient and the case history of his diseases can be well maintained by the help of ICT. Even one can get medicare over telephone; this is called telemedicine and it has already been introduced in our country.

In the Field of Science and Research:

Perhaps ICT is largely used in this sector. Scientists can now easily conduct many complex research works by the help of ICT. Scientists of our country also used ICT when they discovered genome sequence of jute.



It is possible to take such type of clear picture of our heart from outside



Scientists of our country discovered genome sequence of jute by using ICT

In the Field of Agriculture: Our country is mainly an agricultural country. Bangladesh is going to be self-sufficient in food by using modern cultivation method. In this field, ICT is working for the benefit of our farmers. Programmes on agriculture are being made by radio and television. New website has been made in Internet on agriculture. Our farmers can even have the solution of their problems by mobile phone.

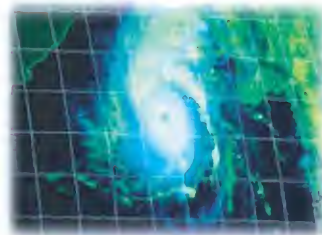


Farmers are getting solution of their problems by Internet

Activity

1. Make a list of items you have somehow or other used from the items discussed in this chapter.
2. Make a list where ICT can be used in education sector.

Environment and Weather: There was a time when many people would die by the storm in our country. About 0.5 million of people died in devastating cyclonic storms in our country in 1970. Now the death rate by the storm has come down; because we can now get the advance news of rain and storm from weather forecast by the help of ICT. Again coastal people are warned by radio and television.



Picture of cyclonic storm received from a satellite



Learnt new: E-book, Telemedicine, Genome, Research

Lesson 6 : The Uses of Information and Communication Technology

The uses of ICT cannot be done by writing. We are now going to discuss some matters that may have effect on the life of your family members.

Advertising and Mass Media:

Radio, television, newspaper or online-news - all are called mass media. These things have developed much in today's world. We not only get any news from any corner of the world, but also get the video of the incident. These have become possible only for ICT.

Publication: New books are given to students every year by the government in our country. The number of these books is more than 20 crore. This huge publication becomes possible only for ICT. Besides, by the help of ICT, published books are kept in website so that anybody can download anything at any moment.



The opening ceremony of world cup cricket held in Bangladesh was shown in entire world



Withdrawal money by ATM card

Banking Service : There was a time when a man had to go to his specific bank to withdraw money; now we do not need to go to the bank if we want to withdraw money. The account holders of the bank have been offered online services deposit and withdraw money from any of their branches. Not only this, one can withdraw money during 24 hours by using bank card where ATM is available. To make withdrawal easier, mobile banking has been introduced.

Business and Culture:

ICT is also largely used in business and cultural sector. Once 26 pictures were needed to make a one-second cartoon movie. Today, the labour of doing this has greatly been minimized by the help of using ICT. Not only this, sometimes animation pictures are made in such a way that they seem to be real.



Dinosaur T-rex; this extinct animal can be produced real by using animation.

ICT in Daily Life : We have discussed some uses of ICT that you may experience in your life, but do not think that there is no other use beyond this. There may be unlimited uses of ICT beyond our discussion.

ICT is used in different works of the country which you may not find in your day - to - day life. ICT is used in trade and commerce. A word named e-commerce has been introduced. By this system, we can do shopping by Internet instead of going to shops and markets. There was a time when too much time was spent to perform official works. Today, official works can be quickly performed by using ICT. This system is called e- governance. The police department largely uses ICT to arrest culprits. ICT is also used in army for the sake of defence of the country. Mills and factories, transport and communication - these sectors will be inactive without the use of ICT.



Any area can be closely monitored by using close-circuit camera.

Activity

1. Make a list of works where ICT can be used other than what has been told.



Lessons 7 & 8 : Significance of Information and Communication Technology

In the previous lesson, we have given many examples where ICT can be used. Not only this, you have also been reminded that there are many fields where ICT can be used other than the examples we have described.

In this lesson, discussion will be made on the significance of ICT. Those who have studied the previous lessons attentively, they themselves have realised the significance of ICT. The technology that has so many uses cannot but be significant. ICT has not only many uses; it can change the sector where it is used. To tell the truth, we shall lag behind in this present world if we do not perform our functions by the help of ICT.

We can make our lives much easier by using ICT. Now we can perform a work in the twinkling of an eye which needed several days before. The time thus saved can be used in performing the works of joy and pleasure. So the people of this age are very active in doing works and they can do many works within a short time.

Activity

Explain what is going on in these two pictures.



We can not only make our lives easy by using ICT. We can also change the picture of our country. Petroleum, iron-mine or gold mine, large mill-factories etc were once treated as the main resources of the world. So the countries with much of these, were treated to be rich countries. Now, this idea has been completely changed. Now it is thought that knowledge is the best asset of a nation. The country that has educated people; the country where knowledge is cultured is the most resourceful country. The culture and analysis of information leads to knowledge. So the country that can collect and analyse information by using ICT is a resourceful country. The door of learning ICT is open to all, the sooner we can learn ICT, the sooner we can build Digital Bangladesh and make our country resourceful.



Contact by mobile phone.



The snap by digital camera



Works done in personal computer



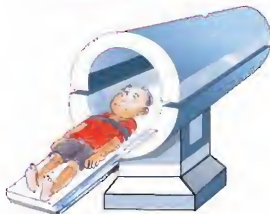
Watching news of home & abroad in TV

To withdraw money from
ATMWashing cloth in
washing machine

Cooking in microwave



Reading the latest book by using e-book



Doing diagnosis by CT scanning



Driving car by using GPS

Activity :

Group task:
Sort-out the sectors how to make teaching-learning easier in your school. Draw a poster explaining how ICT can be used in those sectors.

*** This poster is to be drawn in a class (Lesson-8)**



Learnt new: GPS, Microwave, Washing Machine

Sample Questions

1. Which invention helped information transfer to step into a new world?
 - a. Computer
 - b. Telephone
 - c. Mobile phone
 - d. Optical fibre
2. What has made the world a global village?
 - a. Computer
 - b. Internet
 - c. Land phone
 - d. Mobile phone
3. Where is ATM card used?
 - a. Advertising and mass media
 - b. Publication
 - c. Recreation
 - d. Banking
4. Which one is used to make communication easier?
 - a. Digital camera
 - b. CCTV
 - c. Optical fibre
 - d. Online news media
5. Information and communication technology is -
 - i. To innovate new hardware and software.
 - ii. The facility of getting information in any place of the world.
 - iii. Unlimited scope of information transfer.

Which one is correct?

- a. i
- b. i and ii
- c. ii and iii
- d. i, ii and iii.

Read the following passage and attempt the question Nos. 7-8.

A commercial Bank gives Farjana a scholarship of Tk.1000 monthly for her good results. Farjana is to open an account in that bank to withdraw her scholarship money. At the time of opening the account, she is to fill in an application form containing name, date of birth, names of father and mother, address and signature.

6. Name, date of birth, names of father and mother, address and signature in the application form is together called -
 - a. Information
 - b. Incident
 - c. Data
 - d. Background
7. Which one of the following will Farjana use for quick and easy banking?
 - a. Pay order
 - b. Cheque
 - c. Bank draft
 - d. Credit card
8. Which one of the following technology can best help Bangladesh farmers to protect them from middlemen?
 - a. Radio
 - b. Mobile
 - c. Land phone
 - d. Television
9. Explain with reason why you have chosen this particular answer in question number 9.

CHAPTER TWO

Instruments related to Information and Communication Technology



After reading this chapter, we will be able to

- describe how a computer works.
- describe the instruments used in ICT.
- explain the works performed by different instrument used in ICT.
- explain hardware and software.

Lesson 1: Instruments Related to ICT: Computer

The device which is behind of the great change of the entire world that started using information and communication technology is computer. It has been told earlier that when we say the word computer, a picture of a TV like monitor, a box of CPU and keyboard comes to our mind. Because we all are very much used to see this. Nowadays we visualize a picture of laptop, like an open book, when we say computer. But there are many more types of computers those are shown in the pictures.



Super computer



Mini computer



Desktop



Laptop



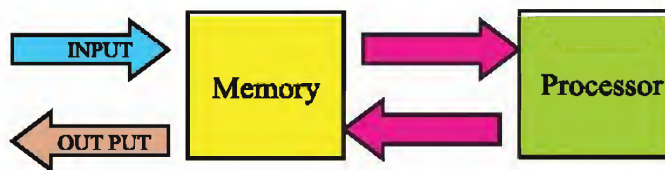
Tablet PC



Smart phone

We have already told you how the computer can bring a change in the entire world. Instruments are made to perform a particular task. Screw drivers are used to open screw, men travel by vehicles. We can neither open screw by vehicles nor we can travel by screw drivers. But computers are a different type of instrument; it can perform unlimited works of different types. In one side, computer can perform complex accounting work, on the other side it can also be used to draw picture. So, there is nothing to be surprised to hear that the computer is an instrument that can do so many works, can bring a change in the entire world.

Surely you all want to know how a computer works. Many of you may think that the process of how a computer works is very complex, but that's not at all true. The main process of how a computer works is very easy. The picture below shows you the process of how a computer works:



How computer works

You can see in the picture that it has four parts: input, output, memory and processor. When you give information and data to computer through input, these are stored in the memory of the computer. The processor receives information and data from the memory and uses them and stores the results in the memory. The work being finished, the computer returns you information and data through output. This is the process of work of all computers of the world.

Those of you who have either seen or used the computer, might have understood that the key board or the mouse is the means of giving input, we send data to computer by this. The computer shows the result in the monitor after finishing the work or gives us a print by the printer. Therefore, these are the process of sending output. We see neither the memory nor the processor of a computer from outside; these are installed inside the computer.

We have talked about keyboard, mouse, monitor and printer as the input and the output of a computer. You must have understood that a computer has many instruments other than these. We shall discuss those instruments in the next lessons.

We have told you how a computer works. But we have not told you how the same computer can sometimes be used for drawing picture, sometimes for listening songs, and again sometimes for doing complex accounting work.



To activate a computer, software is also necessary side by side with hardware

Input, output, memory and processor that we have just discussed are instruments of this or that type. These parts of a computer's instruments are called hardware. We need to keep some specific data in the memory of a computer if we want computer to do something for us. This data goes to the

processor and the processor can do many different functions. These are called software. So, we need to use accounting related software when we want to do some complex accounting works. When we want to draw picture, we need to use picture related software. Human intelligence is the most powerful in the world, it is more powerful than the powerful super computer.

So, we should never compare a human brain with a computer. Even then, to give the example of hardware and software, it can be easily said that - a child can do nothing by himself just after birth; because his brain is like a hardware without software. When the child comes to your age, then he can do many things like you. It can be said that now many softwares have been pushed into his hardware and so he can do many works which he could not do before.

Again you are reminded that it will be an insult to human brain if human brain is compared with computer. Human brain is an wonderful and interesting thing of the world.

Activity

1. Make a group of four. One will operate input device and the other will operate output device. Of the remaining two, one will be memory and the other will be processor. Your teacher will supply two numbers to input device. He will inform that to the memory. Processor will collect these two numbers from memory and then will send it back to memory after adding these two numbers. Output device will get it known from memory device and then will return it to the teacher.



Learnt new: Super Computer, Mainframe, Personal, Hardware.

Lesson 2 : Computer - Computer Game

In this lesson, learners will act as computer. First, write the following software in a piece of paper.



Boys and girls are playing computer-computer game

1. Receive the first number from input to memory .
2. Memory will give this number to processor for adding 10 to it.
3. Processor will send the result to memory.
4. Send the result to processor for multiplying by 2.
5. Receive the multiplication result to memory from the processor.
6. Give the multiplication-result to processor from memory for deducting the first number.
7. Receive the deduction - result in the memory from the processor.
8. Give the deduction-result to processor from the memory for deducting the first number.
9. Receive the deduction - result in the memory from the processor.
10. Give the deduction-result to the output from the memory.

One will act as input, one as output, one as memory and the other as processor. All learners of the class will be divided into many groups consisting of four.

At first, the teacher will give the software to input. Input will give this software to memory.

Teacher will give input any number after the software is loaded in the memory. Input will give number to memory. Memory will receive the number and then will inform the processor all the stages of the software. Memory will give the result to output after finishing 10 stages. Output will inform teacher that number.

Teacher will examine whether the result is true (for right answer: 20)

When the learners understand how things are done, they may be encouraged to write some software and then use it accordingly to similar process.

Here the software is written in easy English. The computer language of software is programming. The word "programming" is used in all computers. When you will study at college or university, you will be able to write many nice programmes by yourselves.

```
void graph::dfs()
{
    int label=0;
    for(int i=1;i<=n;i++)
        if(!reach[i])
        {
            label++;
            dfs(i,label);
        }
    cout<<"
The contents of the reach array is:
";
    for(int j=1;j<=n;j++)
        cout<<reach[j]<<" ";
}
```

We cannot read and understand the above software programme, but computer can really do.

Lesson 3 : Input Device

From the last two lessons we have come to know that input device is needed for making entries of information and data in the computer. We have already told that keyboard and the mouse belong to input device.

We can write either in English or Bangla by keyboard. When any button is pressed in the keyboard, a particular letter of that button appears in the screen of the computer.

It is not that we always write either letter or word-very often we need to do some other things. As for example, if we want to draw a picture, we cannot do it by the keyboard. We can try for it by moving the mouse.

Sometimes we need to insert a full picture in the computer. if the picture is taken by a digital camera, that picture can be directly inserted into the computer from the camera. If the picture is in print form, we have to scan it by scanner if we want to insert it in the computer. So, the digital camera and the scanner are also one type of input device.

Different types of input device



Keyboard



Mouse



Digital Camera



Scanner



Video Camera



Web Camera

Like digital camera, video camera or web camera is also input device. We can insert video into computer by camera. Those who play computer games, they

sometimes use joystick; they insert game-information into the computer by this stick, therefore these are also input devices. Many of you have seen how circles are filled in examination scripts. The instrument that can read the filled circle of the scripts is also input device, because this instrument inserts the information of the exam script into the computer. Some pictures of input device are shown below:



Joystick



OMR



Microphone



Barcode Reader.

Activity

1. Think and write on other input device excluding the devices that have been discussed.
2. Input device only supplies information and data to the computer; no information can come out of input device. Can you think of any other input device that can simultaneously work as output device?



Lesson 4 : Memory and Storage Device

From the careful reading of the previous lessons you might have understood by now that the most important part of a computer is the memory, where information and data are stored. The processor collects information and data from the memory and then works on it. So, if we want to perform any function by the computer, we shall have to keep it in memory. We cannot see the memory as it is inside the computer. So the picture of memory has been given in your book. Information and data are serially arranged in the memory. If we insert any information and data at any time from any where according to our device, it is called RAM (Random Access Memory). You can easily understand that the data kept in the RAM is not permanent. If you keep another data in the RAM, the previously-stored once will be erased.



RAM; A one giga RAM can keep information equivalent to one million words

Perhaps you have become worried to know that one information erases another information from the memory. The reason of becoming worried is that you have prepared a particular software after hard work and you have kept that in the memory and you are doing many works by using this. Now if another person sets another software in the memory, your software will be erased; will your hard labour for a long time be fruitless? No, that cannot be allowed to happen.

Actually that does not happen. Information and data are kept in the RAM for the time being. If you need to keep permanently, you need to keep it in another place. Those are called storage device. At the time of use, the information and data are brought to memory from the storage device. The name of the most familiar storage device is hard disc drive. The information kept in the RAM is temporary; it vanishes the moment



The disc of this hard drive moves from 5400 to 7200 times in a second

you close the computer. The information kept in the hard disc does not vanish when you close the computer. But you can erase one information and keep the other if you want to.

The hard disc is normally strongly attached with the computer. So, another method is needed to transfer information from one computer to another. This problem has been solved in different ways at different times. The name of a most popular solution at this moment is CD (compact disc). CD is not only used in computer but also used for listening to songs and watching movies. The writing in a CD cannot be normally erased; but another type of CD is also available where you can write again and again or you can erase the written information.

The name of the easiest solution of carrying computer information in your pocket is pen drive. The pen drives are so small that you can keep them in your pocket just like a pen, but yet you can enter ten thousand to twenty thousand books in one pen drive.



Today, not only the information of computer, but also songs and movies can be stored in a CD. Computer collects information from CD by the help of light-signal.



You can store ten thousand to twenty thousand books in a 8-giga byte pen drive and move here and there keeping it in your pocket.

Activity

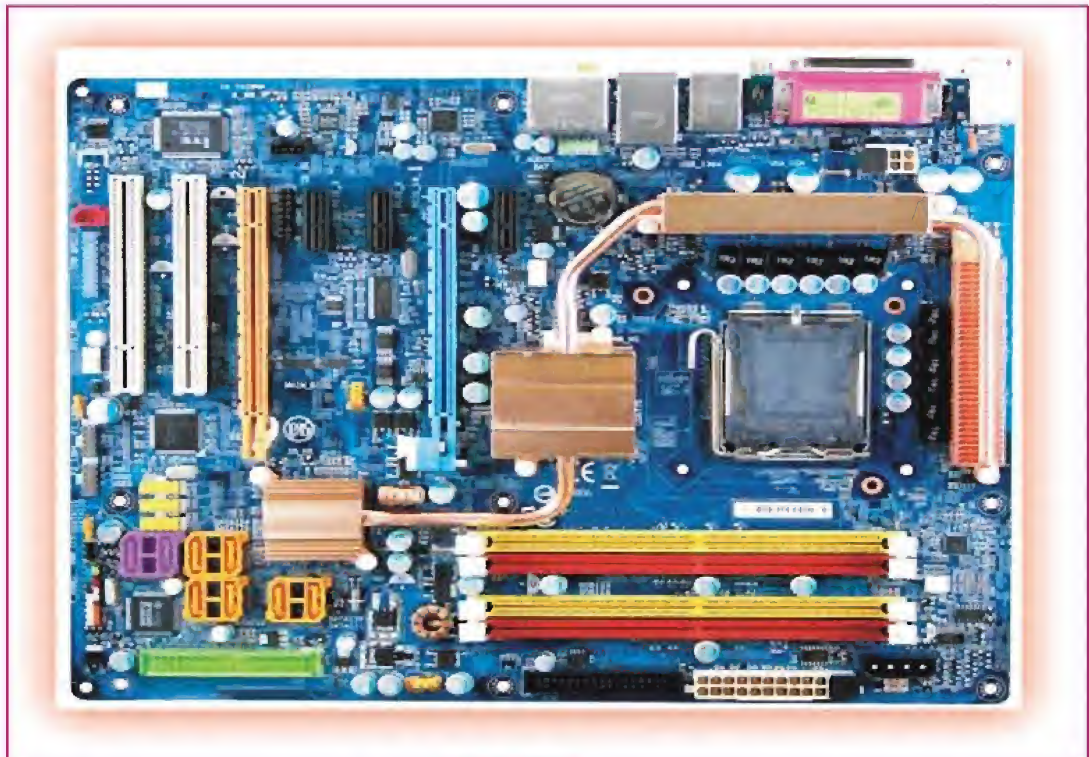
Collect a CD. Let sunlight to fall on CD and reflect the light on a wall. You will see wonderful seven colours in the wall. It occurs because of sharp lines on the surface of CD.



Lesson 5 : Processor and Motherboard

Every part of a computer is very important. Computer cannot work in absence of any part. Even then, the most important part is processor. We have already told that the processor of a computer gives to and takes information from the memory and then does processing. Processor is also inside the computer as the memory and that's why we cannot see it from outside. If we dismantle a computer, the processor must be appeared in our eyes distinctly.

If we open a computer, we will normally find a board with innumerable tips of electronics attached to it. The name of this board is motherboard and it is the most significant part of a computer. This board holds and protects all the parts of the computer as a mother does for all of her children. So this board has been named "Motherboard". We will find a pretty big device in all motherboards with a big fan attached over it. A large amount of electricity flows through a processor as it does millions of accounting-works in a moment. So, the processor becomes so hot that it needs to be cooled down by a fan; otherwise the processor may be burnt down.



Motherboard



Processor

The processor is the biggest and important of all electronics in a motherboard

Activity

A processor needs to be cooled down by a fan when it becomes too hot. There are thousands of processors in a super computer which cannot be cooled down only by fan. Give a solution of your own how that can be kept cold.



Learnt new : Motherboard, Electricity Flow, Processor.

Lesson 6 : Output Device

By now you have learnt that information and data are entered inside a computer by input device. Computer works on those information and data by the help of the memory and the processor. Works having done, computer sends out result by output device.

Those of you who have either seen or used the computer or have seen the picture of a computer, can identify the monitor separately, as it looks very much like a television. What happens inside a computer appears at the monitor. So those who use computer, always keep their eyes on the

monitor of the computer. If you write something in the computer, you can see that in the monitor; if you draw any picture, you will also see it in the monitor.

What appears in the monitor of a computer is not at all permanent-if anything comes, the previous ones will vanish. We need to take some other step if we want to do something permanently and for doing this the printer is the easiest solution. Every thing of what has been written in this book was first printed by a printer. We can take print either of books or letters in the paper of a definite size, but we cannot use general printer when we need to print poster, banner, big size advertisement or the map of a house. For these, we need plotter.

It is not that we always want to print something permanently by using output device. Sometime we want sound as an output, for instance we want to listen to a song. So we can attach a speaker with computer if we want to get sound as an output. So, a speaker is also one type of output device.

We can see in the monitor and can hear from the speaker. So the computer has now become a great means of recreation. Only one person can watch in the small monitor of computer; sometimes it is not sufficient, rather we need to see together. The picture in the monitor must be made bigger when somebody deliver lecture or give a presentation

in a seminar. To watch world cup or enjoy movie, the monitor must also be made bigger. Multimedia projector is used in these cases. The picture in the monitor can made much bigger in the screen of a video projector.

Once the monitor of a computer occupied large space; today's monitors are very light and thin.

While discussing input device you were asked to tell whether there can be



Monitor

any device that can act as both input and output device at the same time. Surely it can be and the name of such device is touch screen. The touch screen works like a monitor and we can enter information inside that screen by touching it. Now, touch screen is not only for the computer, there is also touch screen for mobile phone.



Printer

Printer does not only print brightly, it also can do colour printing



Ploter

Plotter is there for printing big picture, banner and poster



Speaker

Even sound can be output, then speaker is the output device



Multimedia Projector

We have video or multimedia projector to show the picture of the monitor in a much bigger size



Touch Screen

Touch screen is both input and output device at the same time

Activity

Can you imagine of a new output device by which we can do something else other than seeing or listening?



Learnt new : Monitor, Printer, Plotter, Speaker, Video Projector, Touch Screen.

Lesson 7 : Software

Input, output, memory and processor - all these are hardwares. These hardwares become active and meaningful in the computer by the help of software. We shall make a brief discussion about these in this lesson.

Generally softwares of a computer can be divided into two types. One type has already been discussed. We have already mentioned that we can write, draw picture, listen to song, roam in Internet and do many such works and applications by the help of a computer. So this type of software is called application software.

But this application software cannot be used directly in a computer. If we want to use these application software, we need to keep the computer active by the help of another type of software. The name of this software is "Operating system software", in short "Operating system", more briefly speaking OS. The moment a computer is made on by switching, the operating system starts working immediately. It examines all hardwares of the computer, links up one hardware with the other and activates the input and the output systems. It also manage how information is to be stored in the computer.

So, operating system activates a computer and makes it ready for work. Operating system prepares many works for uses in the computer so that application software can use those.

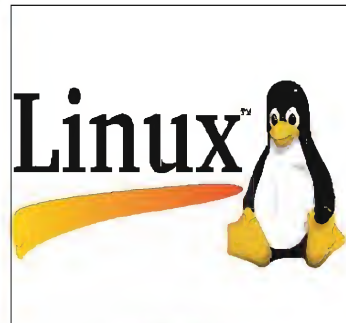
Super computers have their own operating systems. The name of operating system of our familiar PC or personal computer is WINDOWS, MAC OS, UNIX etc. We are to buy both the operating system and the hardware of a computer with money and these are very costly. So, many computer scientists of the world have jointly prepared one type of open source operating system which is free of cost. You should not think that as they are available free of cost; they are not good for work. Those are very good operating system. The name of such type of operating system is "LINUX", which is very popular operating system in the world.



WINDOWS



MAC



LINUX



There is no significant difference in using Windows, Mac and open software Linux

Activity

Debate among yourselves in 3 groups about which one is better; to buy windows software with much money, or to use it by managing it illegally, or to use Linux software free of cost.



Lesson 8 : Application Software

Those who have studied the previous chapters, already have known what application softwares is meant. We earlier mentioned that what can be done by a computer absolutely depends on our creativity. Finding a task to do, we can develop an application software for that task.

There are two types of application Software: Package Software and Customized Software.

Many people separately prepare application software for the works which most of the people need to do; as for example -application software for writing which is called "Word Processor". Many interesting word processors have been prepared as all people want to use them. Just like this, separate softwares have been prepared for drawing picture, listening music, watching videos, playing different types of computer games and for roaming in the Internet. The name of this type of software is - package software. As many companies produce TV, car and camera and sell them in the market and thus earn money, just like this many companies develop package software and sell it to people and then earn money. You will be astonished to hear that many of the richest men of the world have become rich by selling package software.

We have just told that there is application software for all types of work. Then a question comes-"Is there software for preparing software"? Surely, there is; we have told you before that when you will be a bit older and learn how to do programming, you will be able to prepare software for making another software and thus you will be able to prepare special softwares of different types. When a special software is prepared for doing a particular work, it is called "customised software"

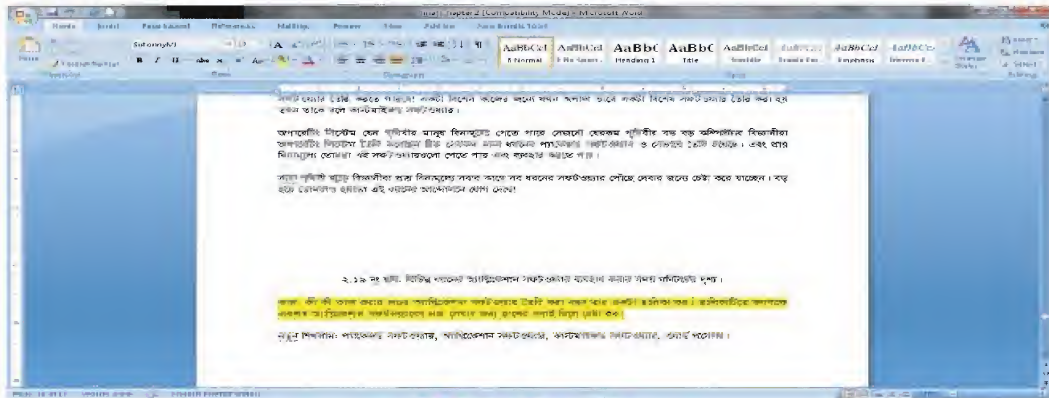
Different package software are being prepared as the great computer scientists of the world have prepared different operating systems free of cost for the user.

You will get this package software almost free of cost for your use.

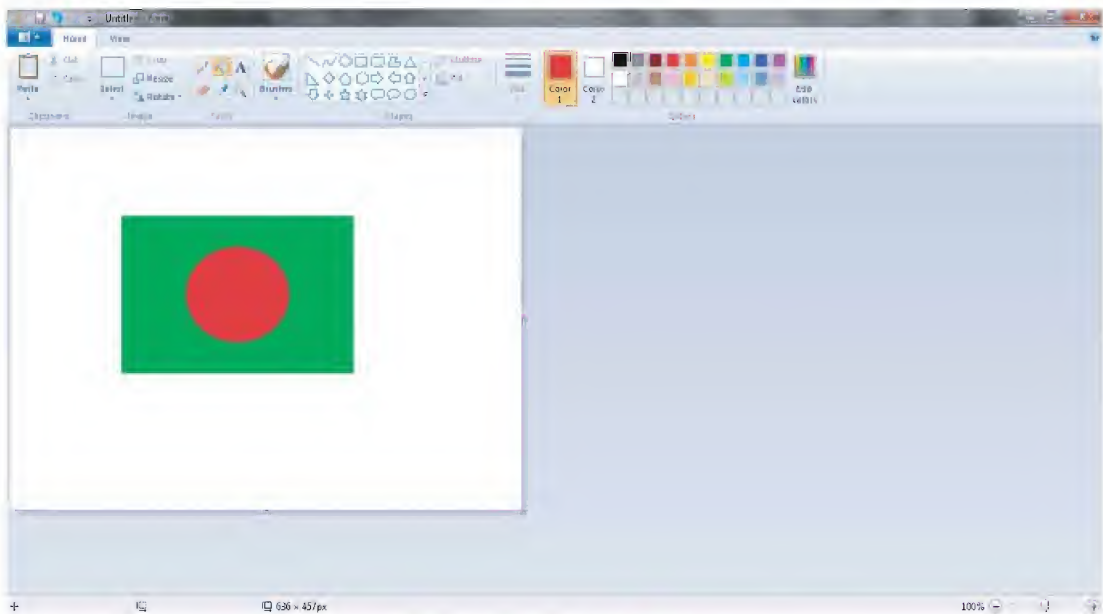
Scientists all over the world are trying to reach all types of softwares to all people

almost free of cost. When you will be older, you may also join in this effort!

The view of monitor at the time of using different types of application software:



Software for writing



Software for drawing picture



Games software

Activity

- Make a list of works that can be done by using application software.
- All of you of the class try to include minimum ten application softwares in the list



Learnt new: Package Software, Customised Software, Word Processor

Lesson 9 : Some More Machinery of Information and Communication Technology

In our attempt to discuss the instruments used in information and communication technology, we have discussed the hardware and the software, which are the most important parts of this technology. Now we are going to discuss some other instruments used in information technology.

Land Phone and Mobile Phone: Once upon a time electric wire was used in the function of talking over telephone. Our conversations commuted as electric signals through the wire. As the signals had to be sent through electric wire, so the telephone always had to be connected with the wire; these phones are called land phones.

Due to the advancement of technology we now can send wireless signals if we desire. We can move here and there keeping this phone in our pocket as this phone has no connection with the wire; that's why we call this phone "mobile phone". The price of this phone has come down, so even the ordinary people of the country can use this phone.

It is not only that the price of the mobile phone has come down, mobile

phone is gradually becoming "Smart phone". We can take picture, listen to songs, listen radio programmes, can move with GPS, can play game, even use Internet by this mobile phone.

So, we can imagine that this mobile phone in the future will be able to perform the functions of a computer.



Mobile Phone

At present, mobile phone is used not only in talking; it is used in innumerable works. It is thought that this Mobile phone will perform all functions of a computer within a short time.

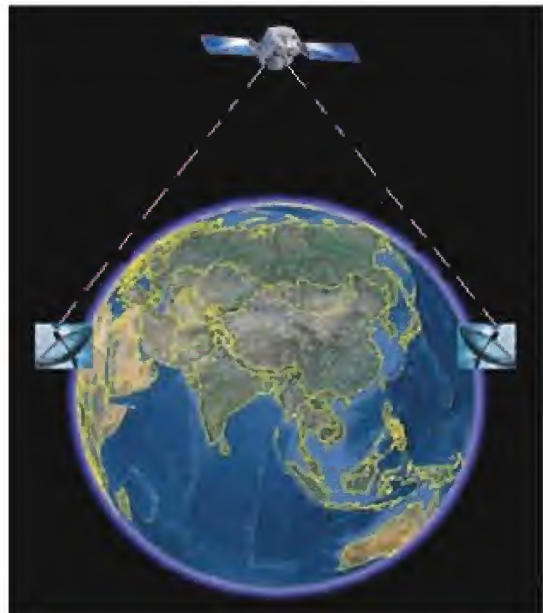


Modem

Modem connects a computer with the telephone

Modem: Once telephone line or telephone network was used only for sending voice. Now telephone line or telephone network is also used for sending data and information of a computer. The name of the instrument that connects telephone network with the computer is modem.

Satellite: We sometimes use satellite for sending information from one surface to the other surface of the world. Antenna looking



Dispatching information from one surface of the earth to the other surface by using satellite.

towards the space sends the information and the data to the satellite. Satellite receives the signal and sends it to another direction. Unlimited numbers of TV channels are distributed in the whole world by this process.



Optical fibre

Optical fibre; it is possible to send unimaginable numbers of information through the fine fibre of the glass.

Optical Fibre: There was a time when any information was sent any where in the world as electric signal through the wire or as wireless signals without wire. Now, a new technology has come up throughout the whole world for sending information and data and that is "Optical fibre technology". Actually optical fibre is the transparent fibre of the glass, it is as thin as hair and information and data are transmitted through this in the form of light -signals. Laser light is used for light -signal. You will be astonished to hear that this light cannot be seen by our eyes. It is possible to send as

much information by an optical fibre which is equal to that of one crore telephone lines. So, optical fibre is now used throughout the whole world as a means of communication.

Activity

Draw a picture of how information can be sent from one computer to the other by using Optical fibre, Modem and Computer



Learnt new: Modem, Satellite, Antenna, Optical Fibre, Laser

Sample Question

1. At present, which one of the following is the most important wireless means of communication?
 - a. Radio
 - b. Television
 - c. Mobile Phone
 - d. Land Phone
2. Processor is called the brain of a computer, because-
 - i. It is connected with motherboard.
 - ii. It acts as the indicator of computer.
 - iii. It processes information.

Which is correct

- a. i
 - b. ii
 - c. iii
 - d. i, ii and iii
3. Suppose you want to save your written poems in the computer for a long time. Which device will you use for this?
 - a. RAM
 - b. Hard disc drive
 - c. Processor
 - d. Pen drive
4. Which one act as both input device and output device?
 - a. Monitor
 - b. Touch screen
 - c. Keyboard
 - d. Motherboard
5. The main work of the operating system is ?
 - a. Input output operation
 - b. Controlling file system
 - c. To make system of conducting programme
 - d. To detect mistakes of other devices

Read the following passage and answer question Nos. 6 and 7:

Mr. Hasan was talking to his grand sons and daughters about various scientific inventions. He said, "Many things have now been invented; interesting programmes can be watched, heard, recorded to be enjoyed later on by the same instrument. It has now become very easy to send any news

anywhere at any time. There was a time when we did not have any of such things. It took several months to get any urgent news".

6. In the talk of Mr. Hasan, which development of science has been given importance on-

- i. Satellite television.
- ii. Postal development.
- iii. Information and communication technology.

Which one of the following is correct ?

- a. i
- b. ii
- c. i and ii
- d. ii and iii

7. Which means will Mr. Hasan use to send any new information anywhere at anytime?

- a. Internet
- b. Land phone
- c. Radio
- d. Mobile phone

8. Which technology is used to send information from one place to the other place of the world?

- a. Optical fibre
- b. Internet
- c. Mobile phone
- d. Satellite.

CHAPTER THREE

The Safe Use of Information and Communication Technology



After reading this chapter, we will be able to

- explain how some instruments of ICT can be safely protected.
- explain safe use of ICT.
- describe whether there will be any problem if too much time is spent in using computer.

Lesson 1: The Safe Use of Information and Communication Technology

There was a time when little boys and girls were kept far away from any instrument. You can find that, the time has been changed. Instead of keeping boys and girls of your age away from using instruments of ICT, they are encouraged to use those instruments. This chapter has been written to teach you how you can use computer, printer or modem safely and fearlessly.

Those who manufacture computer, know it well that today not only the adult persons but also the young children use computer. So all computers are made in such way that there remains no danger or health risk in using them. The only thing about which everyone needs to be careful is the electric connection of the computer. Desktop computer always needs electric connection and the laptop computer needs electric connection only during the time of charging the battery. We can feel electricity when its voltage is more than 50 volts. The voltage of electricity-flow of our country is 220 volts, so we feel a strong electric shock when the electric wire touches our bodies in any way. Signals are sent from our brain through the nerves to make our hearts beat or to stir hands and legs by using our muscles. You will be surprised to know that these are electric signals which is very low. When a person gets an electric shock, huge electricity flow through his/her body; little signals sent from the brain falls under this strong electric flow. So, a man cannot move his hands and legs when he becomes electrified, if it lasts for a long time, his heart-beat may stop. So, electric connection should never be neglected. We cannot do any single moment without electricity in present age. We should use electricity carefully. We always need to use right socket and right plug in using electric connection. We should not give electric connection from an open wire by removing its plastic and then entering the plug.. Moreover, we must stop any one if we find him/her doing this type of work.

When the electric connection is proper, we need to be careful about only one matter of the computer. We have already told that the processor of a computer may sometimes become very hot and so now-a-days separate fan is set over a processor. Other ICs of motherboard may also become hot. So the inside temperature of a computer may be higher than outside temperature. So, fan is set in every computer to push out the hot air from the computer. This fan pulls in air from outside and pushes out hot air.

So, when you will use any computer you will have to be attentive to ensure whether the cold air is entering inside and the hot air is coming outside. You shall have to ensure that airflow is not closed. You will be able to use your computer for a long time if you remain careful about this matter.

You might have heard some people saying that there should be an air conditioner in the room for using computer to keep the room cold; this is not at all true. The temperature that you can tolerate, your computer can tolerate a higher temperature than that.



Faulty electric connection



Proper electric connection

Activity

1. Check all electric connections in your school and see whether they are properly done. If not proper in any point, inform your teacher.
2. Find out the direction in which cold air enters and hot air comes out in the desktop and laptop computers of your school.



Fan is set over the processor to keep it cool



Proper airflow inside the computers must be ensured



Lesson 2 : The Maintenance of ICT Instruments

Those who drive cars need to change engine oil after some days. The car will not only be damaged within a short time but also be dangerous for the passengers if the maintenance of the car is not proper. Like cars, other instruments also have to be maintained properly; but we are lucky that we do not need to take that much care of a computer. Yet you can use your computer for a long time if you are a little bit careful about some small matters regarding the use of computer.

Cleaning of the monitor: At present, most of the computer monitors are LCD monitor and it is better if you do not attempt to clean LCD monitor. Its back is not made of glass; so there may be scratches if you try to clean. Not only this, the pixels inside the monitor may be damaged if you rub during cleaning.

You can clean CRT monitor with a soft cotton cloth if it becomes dirty. If cleaning is not properly done in this way, you can use a little amount of glass-cleaner in the soft cotton piece of cloth.

If the glass cleaner is not available, you can prepare alternative glass-cleaner by mixing one spoon of vinegar with a glass of water.



You need to clean monitor with a soft cotton cloth

You must remember that the computer must be made off by disconnecting electric connection at the time of cleaning any part of a computer.

Water or Liquid: It is better not to keep water or any type of drinks near a computer when you use it; because, if the water or any liquid suddenly falls on your computer, your computer may be damaged. Water or any other drink is conductive, if it enters into the computer, electric circuits may be short-circuited. If such type of incident happens, switch off the computer immediately and keep it under a fan for long time so that the water is evaporated.

Dusts: Dusts are much in our country. The fan of a computer pushes in air; there may be some dust in that air. The computer may become very hot if the airflow gets blocked with dusts. So, you should frequently check whether dusts have fallen over that passage. Clean the passage if you find it dirty; but never try to open a computer for cleaning inside.

Cleaning Keyboard: It is better to clean the keyboard frequently because many germs may spring up there as it is used by our fingers of hands. Keys can be rubbed with a piece of dry soft cotton cloth and the surrounding of each key can be cleaned with cotton - bud. After this, make it upside down and give a mild jerking for several times and the keyboard will be some what cleaned.



Cleaning may be done by fixing cotton with the stick of keyboard or with cotton bud and rubbing with a piece of soft cotton cloth

The Cleaning of Mouse: At present almost all mouse are optical mouse, it functions when light is reflected, so if the lens of a mouse becomes dirty, it may not work properly. If dusts accumulate in the mouse, detach the mouse from the computer and keep it upside down and clean the dirty spots with cotton bud and then rub with a soft cotton cloth.



Dust of the mouse may be cleaned either by a stick with cotton or by cotton bud.

Activity

1. Students of the class will check the computers of their lab or any other place and find out whether their monitor, keyboard and mouse need cleaning.
2. They will also check whether the passage of the airflow is blocked by the accumulation of dusts.



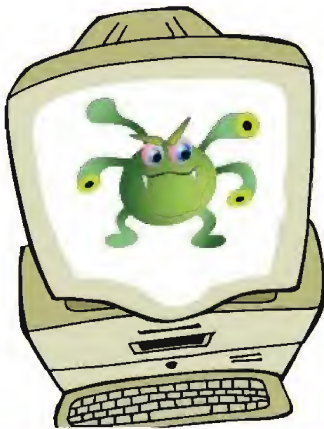
Learnt new: Cotton bud, LCD Monitor, Pixel, Short-circuit, Vinegar

Lesson 3 : The Maintenance of Software

We have known that a computer has two parts; one is hardware and the other is software. We have talked about the maintenance of hardware in the previous two chapters. Now, you may ask a question whether there is any necessity for the maintenance of software.

Certainly, there is necessity for the proper maintenance of software. Those who use computer know it well that the improper maintenance of software creates greater problem than the improper maintenance of hardware.

The cause of this problem is due to the virus of the computer. You must have heard about the germ of disease and the virus. We sometimes fall sick due to this germ and the virus; computer virus is just like a computer programme of that type for which a computer cannot work properly. The germ of a disease or a virus can spread from one person to another and make him/her sick. The computer virus may also spread from one computer to another. When a real virus attacks a human body, it multiplies its number and gives birth to innumerable viruses; the virus of a computer is just like that. If a computer virus can anyhow enter into a computer, it turns into innumerable viruses. The real virus attacks a person without his/her knowledge; the computer virus also attacks a computer without every one's knowledge.



Computer virus may cause us many problems if we do not remain careful about the use of computer.

The difference between the real virus and the computer virus is that, one already exists in the nature and the other is made by dishonest person to harass others.

Man-made computer virus is nothing but a little programme. It can easily spread from one computer to the other through computer network.

When you make a copy of something from a computer either in the form of

a CD or a pen drive, the virus may also be along with that copy even without your knowledge. So, you should always remain very careful when you make a print of any thing from any computer.

Computer virus is not like a germ-carrying virus. it cannot make us sick. This virus cannot also go from one computer to the other. This can go from one computer to other computer only at the time of copying information and data or only through the network.

Today, many types of anti-virus programme are available to protect the computer from computer virus. Again, there are some wicked persons in this world. They regularly develop newer virus and spread them. So, those who want to save themselves from virus, they need to purchase updated anti-virus programmes. That is much expensive for the general people.

But virus is not made for the open source software; so one can remain safe from this problem if he/she uses open source software programme.

Activity

Make a list showing the similarities and the differences between the real virus and the computer virus.



Learnt new: Virus, Computer Virus, Anti-virus.

Lessons 4 & 5 : Health Hazard and Consciousness of ICT Application

Milk is a very nutritious food; it is good for children to drink milk regularly. But, if we throw a child into milk's drum, then there is a possibility to be drowned for the child. That means, though a thing may be very good but it is dangerous when it is dealt excessively. It is also true in the case of computer.

Computer has been made for help in our daily life, and this should be used accordingly. But if we start to deal with it excessively then it can cause a danger.

A bit intelligence is required to use computer. For this reason, many parents

buy computer for their children to play as a toy. It is seen after that many children have been addicted to computer games and play computer games all day and night. Which is harmful to the children. A little boy cannot come out from computer games. He may fall sick sitting in front of computer for twenty-four hours at the age when he should play in the field with his friends. Mental sickness is more dangerous than physical sickness.



Children should play regularly by swimming or running

Many physical problems may happen if someone sits in front of computer for a long time. In this regards back pain, pain in fingers, problems in eye are not surprising matters.

Different types of problems have been seen with the grown up youths. A man can make social contact with others using computer. Even though it is an easier way for ordinary mix up, but almost every time it is seen that many people take it to the extreme stage. Many people think that it is an actual social relationship. So, they forget about normal relationships with others. In most of the cases, these boys and girls grow up unsocially.

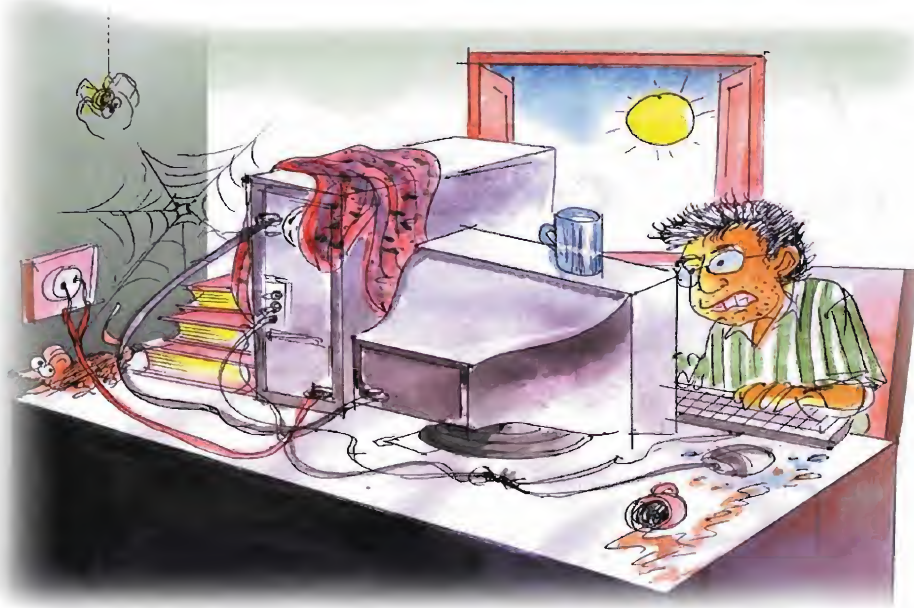
Information and communication technology is comparatively a very new technology. That's why we have not yet understood its further capabilities till now. We have understood some of its good capabilities in one side. But we have also to look that it may not make harm to us subconsciously.

There of you, who will use information technology in life, always remember, you should use the technology and never let the technology use you.

Activity (Lesson-4)

Doctors have found a back exercise for those who work a lot with computers. If you want you can also try it.

- Standing or sitting straight spreading both shoulders frontwards and shaking them up and down.
- Spreading and squeezing the fingers of both hands 10 times.
- Entering the fingers of one hand through the others holding it strongly and moving them to and fro.
- Standing straight and leaning shoulders to the right, keep them straight for a few seconds. Do the same for the left shoulder. In this way practice several times.
- With shoulders leaned forward touch your chest with your chin, keep them for few seconds and try reverse it as much as you can. Practice this several times.

**Activity (Lesson-5)**

Find out the mistakes of the uses of ICT in the picture.

- Draw another picture including some mistakes.
- Learner will do this work during a whole period.



Exercise

1. What is the voltage of electricity blow of our country?
 - a. 200
 - b. 220
 - c. 240
 - d. 260
2. While using computer everybody should be careful about-
 - a. Time
 - b. Electric connection
 - c. Mental fatigue
 - d. Inclement weather
3. Which things should be used to clean CRT monitor first time?
 - a. Soft cotton cloth
 - b. Thick cotton cloth
 - c. Wet cotton cloth
 - d. Glass cleaner
4. What do you mean by safe use of ICT instrument-
 - i. Maintenance of ICT instrument.
 - ii. Safe use of ICT avoiding health risk.
 - iii. Taking preventive measures of ICT instruments.

Which one is correct?

- a. i and ii
 - b. i and iii
 - c. ii and iii
 - d. i, ii and iii
5. What work is to be done at first at the time of cleaning hardware?
 - a. Disconnect the electric connection of room.
 - b. Disconnect the electric connection of computer.
 - c. Ensure the presence of fire extinguisher.
 - d. Switching off your computer

Read the following passage and attempt question No. 6 and 7:

Salma went to Cox's Bazar with her parents keeping window opened by mistake. After returning home, she finds that keyboard and mouse of her computer are not functioning properly.

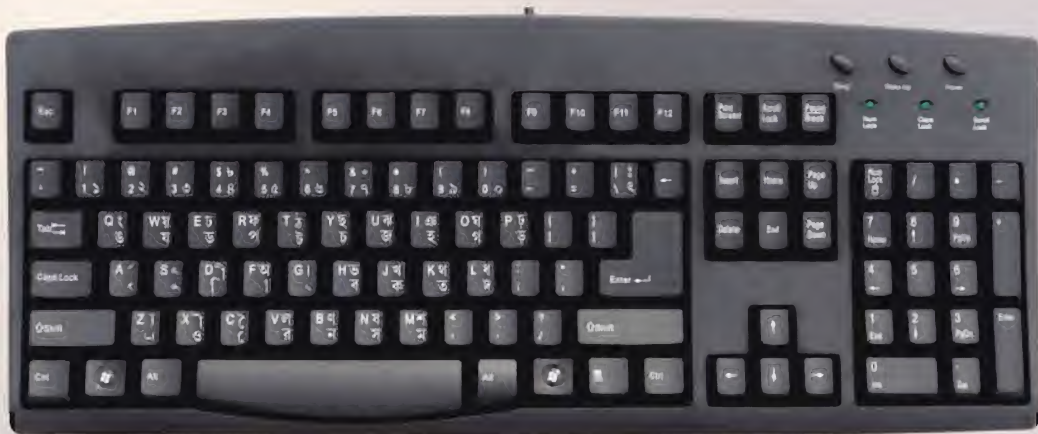
6. Key board and mouse of Salma's computer are not functioning properly because-
 - i. Access of huge dust in the room
 - ii. No use of aircondition in the room
 - iii. Carelessness of maintainance computer.

Which one is correct?

- a. i and ii
 - b. i and iii
 - c. ii and iii
 - d. i, ii and iii
7. Which thing can Salma use to clean her mouse for the first time?
 - a. Glass cleaner
 - b. Soft wet cloth
 - c. Cotton cloth
 - d. Cotton bud.

CHAPTER FOUR

Word Processing



After reading this chapter, we will be able to

- describe word processing.
- describe the relation between ICT and word processor.
- describe the importance of word processing in ICT.
- create file for saving something written.
- write Simple English using word processor.

Lesson 1 : What is Word Processor?

You have to write a lot for study. You write down in the papers of notebooks or plain papers with pens or pencils. He/She whose handwriting is good can write systematically, his/her script looks good, while the other with bad handwriting, without good presentation and overwriting does not look good, but it is not a great problem at all.

Sometimes you need good handwriting; what will you do if you want to publish a magazine or write an address of honour or submit an essay for a national competition? Actually, we had nothing to do in the past, rather than getting it typed by typewriter. Now we can get it beautifully printed composing it in computer application. Software made for writing is called word processor. To write something, words are to be written, arranged in a specific written system, which is called processing. These two make word processing and the doer of software processing is called word processor.

You can easily find out in the next lesson what you can do using processor. When you will write something using word processor in a real computer, you will learn its pros and cons, which you can often learn by reading books. In spite of this, it will not be redundant to add a few words about word processor. Firstly, the marked difference between normal writing or typewriter and word processor is that in word processor editing or changing is possible. Having finished writing in typewriter when we find that some thing has gone wrong, we can really do nothing except cursing ourselves. We have to write it again in full if we really want to correct the mistakes. Nothing can be easier than correcting the mistakes in word processor. Not only mistakes, any other editing can be done if we wish, a new part can be added, discarding the old one.

The second great difference between normal writing and word processor is document saving. It is not so easy to preserve something in manuscripts .We could not remember where it has been kept. it may not be found when required. If found, it is found worn out or eaten up by white ants (insects).

Word processors have no such problems. All writings can be saved as a file in a hard drive. If required it can be copied in pen drive or CD. It can be saved in other's computer also if someone is Cautious.

As word processor is very useful and popular software, all renowned software companies have made beautiful word processors. Microsoft Word (MS Word) developed by Microsoft Company is such an application software. If anybody wants to collect a word processor free of cost, he has software for him called open office writer.

So you understood that the invention of paper was obviously a milestone for human civilization. Thousand years after, now it is possible to write without papers which has added a new dimension to human civilization.

Activity

Make two groups with the students of the class. One group will argue what the benefit of using word processor is by totally stopping the use of papers. The other group will argue why we should continue the use of papers. Observe and ascertain whose arguments are better.



Learnt new: Word Processing, Word Processor Microsoft Word, Open Office Writer, Files.

Lesson 2 : Importance of Word Processor in ICT

It is said that a picture is equal to 100 words. We will try to prove whether this saying is true or not. What can be done by a word processor? Why is it so important? You will be shown two pictures without telling anything. In one picture there is a hand writing page. You are shown the same page being typed in word processor. Having seen the two pictures you will discover yourselves what you can do by the word processor.

મહત્ત્વ પૂર્વક: એક અકસ્માત
(Road Accident : A Carse) વાહન?

આમાદનું નામ મહત્ત્વ પૂર્વક એક અકસ્માત. મહત્ત્વ પૂર્વક
કામના પદના અકસ્માત પૂર્વકના વાહન અકસ્માત, એક માન્ય મુલાકાત
અકસ્માત હિત ના રત્ન અકસ્માત મહત્ત્વ પૂર્વકના વાહન અકસ્માત
અકસ્માતના કુલ અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત ના।

→ અકસ્માત માં અકસ્માતના પદ માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત, એક
અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
અકસ્માતના કુલ અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત

મહત્ત્વ પૂર્વકના અકસ્માતના વાહન અકસ્માતના કુલ અકસ્માતના
અકસ્માતના વાહન અકસ્માત, અકસ્માતના વાહન અકસ્માતના કુલ અકસ્માતના

ક્રમ	અકસ્માતના વાહન	વાહન
૧	વાહન	વાહન માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
૨	વાહન	વાહન માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
૩	વાહન	વાહન માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
૪	વાહન	વાહન માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
૫	વાહન	વાહન માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
૬	વાહન	વાહન માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત

મહત્ત્વ પૂર્વકના અકસ્માતના વાહન અકસ્માતના કુલ અકસ્માતના
અકસ્માતના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
અકસ્માતના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત
અકસ્માતના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત માં મહત્ત્વ પૂર્વકના વાહન અકસ્માત

19 Sept. 2011

Hand written type

New look of the write up in the word processor

সড়ক দুর্ঘটনা: একটি অভিশাপ (Road Accident: A Curse)

আমাদের দেশে সড়ক দুর্ঘটনা একটি অভিশাপের মতো। খবরের কাগজে যখন আমরা দুর্ঘটনার খবর পড়ি, তখন মানুষগুলোকে চিনি না বলে তাদের আপনজনের দুঃখটা আমরা সব সময় বুঝতে পারি না। শুধু যে মনে দুঃখ পায় তা নয়-অনেক সময় পরিবারের যে মানুষটি রোজগার করতো, হয়তো সেই মানুষটি দুর্ঘটনায় মারা যায় বলে পুরো পরিবারটিই পথে বসে যায়। দুর্ঘটনায় যারা আহত হয় তাদের চিকিৎসা করতে গিয়ে অনেক পরিবার সর্বস্বান্ত হয়ে যায়।



সড়ক দুর্ঘটনা কমানোর জন্যে আমাদের সবারই একটা দায়িত্ব আছে, সেই দায়িত্বগুলো এভাবে লেখা যায়:

ক্রমিক নং	সংশ্লিষ্ট মানুষ	দায়িত্ব
১	পথচারী	রাস্তা পার হবার সময় দুই পাশে দেখে পার হবে। সবসময় ওভার ব্রীজ দিয়ে রাস্তা পার হবে।
২	যাত্রী	গাড়ির ছাদে ভ্রমণ করবে না। ড্রাইভার ঝুঁকিপূর্ণভাবে গাড়ি চালালে তাকে সতর্ক করে দেবে।
৩	ড্রাইভার	সঠিক ড্রাইভিং লাইসেন্স ছাড়া গাড়ি চালাবে না। ড্রাইভিংয়ের সমস্ত নিয়ম মেনে গাড়ি চালাবে।
৪	গাড়ির মালিক	যেসব গাড়ি চলাচলের উপযোগী নয়, সেগুলো পথে নামাবে না।
৫	পুলিশ	সঠিকভাবে আইন প্রয়োগ করবে।
৬	মিডিয়া	গণসচেতনতা তৈরি করবে।

সড়ক দুর্ঘটনার অভিশাপ থেকে মুক্তি পাবার জন্যে আমাদের সবাইকে কাজ করে যেতে হবে। একেবারে ছোট থেকে আমরা সতর্ক থাকব যেন আমাদের পরিচিত আর কাউকে সড়ক দুর্ঘটনায় মারা যেতে না হয়।

19 September 2011

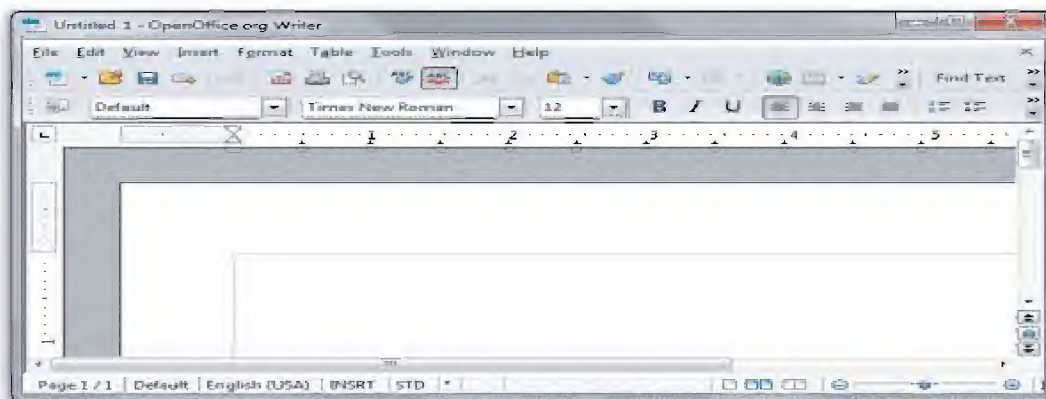
Lesson 3-28 : Opening a New File and Writing in It by Using Word Processor

So long we have studied computer and ICT only in the book. Now, time has come to work practically with the computer. We shall first use word processor.

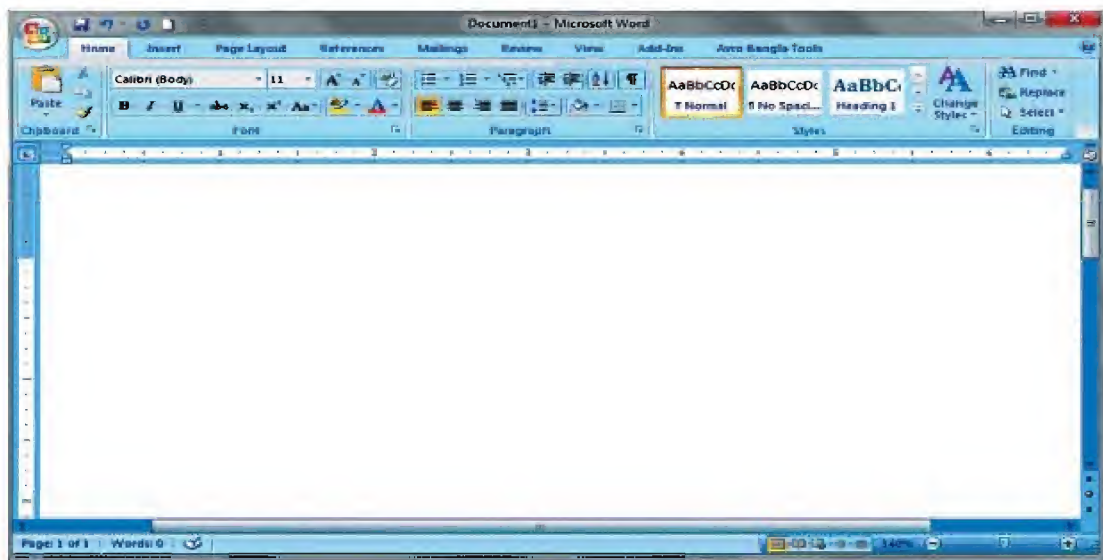
It is not possible to tell which operating system and word processor are there in the computer of your school lab; so you cannot learn the use of any particular word processor; but there is no problem for two reasons. The first reason is - all word processors are more or less of the same type. The second reason is - learners of your age have an excellent skill in using computer. Children of your age can easily do and understand what the older cannot. Now, let's start:

First of all, switch on the power of computer. Operating system will start functioning when the power is on if the electric connection is proper. Now check and see whether everything is okay. Many icons will appear at the monitor if the computer is useable. The meaning of icon is a small picture. The picture of icon appears with the writing, because it is easier to understand from a picture than from a writing. If you move the mouse, you will find a character moving in the monitor. Those who have not used mouse before, they will have to learn it. You should learn first in which direction the character moves when the mouse is moved. Now, set the character or the mouse on the word processor. You may take help of your teacher to know which is the icon of word processor. If the mouse is properly set on the icon of the processor, its character will be a bit different.

Now click the left button of the mouse twice. New learners may initially face some problems but don't worry for that. The word processor will start functioning if you can properly click the mouse twice without moving it. In computer language, computer will be 'open'.



Open Office



Microsoft Word

Microsoft Word and the open office writer look pretty much alike though they are completely different word processors.

Whatever word processor you use, you will find a page, looking like a white paper, open in the entire monitor. A vertical straight line will start "blinking" which means that your word processor is ready for writing. Now you may start writing.


You will need sometime to learn how to write by using keyboard. But there is no need to write something meaningful at this stage. Press the buttons of the keyboard and you will find writings in the white screen. You may give your attention to the writings that appear after pressing different buttons. You will get advantage if you know some instructions. These are:


- If you press **shift key**, writings will be in capital letters, not in small letters.
- After writing a word, press "**space bar**" and you will get a blank space.
- If you press "**Enter**" button after finishing a paragraph a new paragraph will be started.
- When you write something, **cursor** remains at the end, if you take your writing in a different place by moving the mouse, cursor will also go there. You may start writing from that place by clicking the mouse.
- If you press "**Delete**" button, writings after the cursor will be deleted. If

you press "**backspace**" writings before the cursor will be deleted.

(You may do many other things with the keys of the keyboard's **Control**, **Alt** or **Function** keys; but it is better if you do not press those keys at this moment)


It is possible for you to write everything by using word processor if you know the five instructions mentioned above. You can go to the second phase of using the word processor when you have learnt to write something either meaningful or meaningless. That is, to know how to **save** what you have written.

The system of saving your writings is almost same in all word processor. If you look up at the word processor, you will find a ribbon. If you click the mouse on  office button of the left corner of the ribbon, a menu will open. Many things may be written there. See the word **save** and click, word processor will start to save what you have written. When you save what you have written, it becomes a file; each file is saved after being given a particular **name**. When you save something for the first time, it is not named, so word processor will tell you to give a name. Then you will have to type a name (it is better to give your own name to your file if the computers of your school lab are used by many; this is to identify your own file). When the file is saved, it will be written in the hard drive of the computer.

Now **close** your word processor. There are many systems; for the time being select **Exit** option by clicking on  office button. Take the cursor of the mouse and click and then the word processor will be closed.

Congratulations to you; you have opened a file for the first time by using word processor of the computer.

Now, we can go to the third phase. Again, open the file that you saved in your name and do some work here. You can do it in many ways. Let's use the method which is very familiar to us.

Let's double click the icon of word processor. The word processor will open something as before, but we shall not write there anything. We shall again click  on office button. If you click "Open" the names of all files that have been prepared will appear. You now look for the file in your name and click the file twice and thus you can open your file. The works that you have done there even at the last time, you will get there everything written; nothing has been lost or deleted.

You may write some other thing in your file. Save it again when you finished writing.

Again congratulations. You have learnt the primary matters of using word processor. You shall have to practice only. Side by side, you may check the menu to find out what else can be done.

Activity

1. Open a file and write "The quick brown fox jumps over a lazy dog." Can you tell the characteristics of this sentence?
2. Write the above sentence again and again and see how quickly you can write how many times. Start a competition among yourselves and see who can write most quickly.




The above sentence contains all the letters of English alphabet. So if any one can write this sentence, it means that he/she can write all letters.



Learnt new: Menu, Option, Cursor, File, Save, Icon

Sample Questions

1. Which software is used for writing in the computer?
 - a. Graphic software
 - b. Utility software
 - c. Word processing software
 - d. Spreadsheet software
2. What is the function of "Enter"?
 - a. To delete selected part
 - b. To put the cursor in the bottom line
 - c. To delete the letter in the left side of cursor
 - d. To cancel menu or dialog box.
3. What is ribbon?
 - a. Direction of document's title
 - b. List of commands serialised by picture
 - c. List of commands according to the work
 - d. List of editing serialised in the picture

4. Where do you click to open an old file using office  button?
- a. New
 - b. File
 - c. Save
 - d. Text
5. Where do you click to save a written document using office  button?
- a. New
 - b. Close
 - c. Save
 - d. File
6. Where do you click to close a file using office  button?
- a. Exit
 - b. Save
 - c. File
 - d. Open

Read the following passage and attempt the questions Nos. 7 - 9:

Mina knew that the conditions of the women are miserable in five countries of the world. She decided that she would do research and present the result in a seminar. Besides, she thought that she would exchange her views with intellectuals.

7. Which of the following softwares can Mina use for her work?
- a. Customized software
 - b. Graphics software
 - c. Word processing software
 - d. Utility software
8. Which of the following appropriate media will be considered by Mina for exchanging her views with intellectual persons?
- a. Mobile phone
 - b. Land phone
 - c. Internet
 - d. Fax
9. Give reason in favor of your answer of question no.8

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CHAPTER FIVE

Introducing Internet



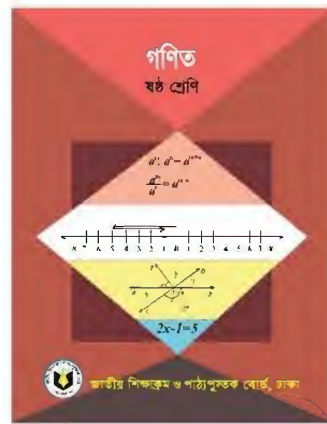
After reading this chapter, we will be able to

- describe internet.
- describe website.
- visit website using browser.
- describe search engine.
- find out information searching internet by using search engine.

Lesson 1 : Internet

In this book several times we have told that the entire world is going through a change caused by information and communication technology and we are observing these changes which are happening in front of our eyes. Internet is the most important among the events for which the revolution of ICT is happening. So, you have to know the Internet. All of you will have to use Internet now and then. Let us now imagine some incidents to understand this thing clearly.

Incident 1: One day, while Rahat was coming from school it began to rain cats and dogs. Rahat was very happy, "Is there any country where rain is so beautiful like Bangladesh"? Rahat thought. He gets pleasure in getting wet in the rain. So, he returned home getting wet. After a while he remembered that he had come home with the school bag. This bag must have got wet. He found it really so. His mother rebuked him a bit and kept the books under the fan to dry. But the Mathematics book was completely damaged. Rahat became so sad that he could not but cry. His mother said, "Its okay. Don't worry. After downloading your Mathematics book from NCTB's website, www.nctb.gov.bd, I will get it printed and bind it for you.



Textbook can be downloaded from Internet



Perfect map of National Monument can be watched by Internet (in the courtesy of "Google Earth")

You will get a new book". Really, mother did this work accordingly - within one hour Rahat got a new book.

Incident 2: Two friends want to go to a place for an important business. But the problem is that none of them went to the place

before. Even they don't know the way to go there. While they were thinking

about it they remembered that they could find the map of that place on Internet. Within a short period, they found the ins and outs of the place. They can go there by the road through a marshy land. Next day, they reached there.

Incident 3: A wounded freedom fighter along with his two daughters was returning home by train. A foreigner was sitting in front of his seat. While traveling they began to talk. From the conversation the foreigner came to know about the liberation war of Bangladesh. He said "I have a pleasure to know the history of your liberation war. Is there any book on this"? The freedom fighter replied, "Of course. There is an Internet link here. Please, try it. You will get everything". The foreigner sat with his laptop and logged on to the link. Within a minute, he could read the golden history of the liberation war of Bangladesh.

Incident 4: In the school's annual cultural ceremony, Mily has intended to dance with the song "Ami Tak dum tak dum bazai Bangladesher dhol". But the problem is that she does not have any cassette or CD of this song. She was very sad and about to give up her hopes. Then her teacher Rawsan-Ara said to her "Mily, don't worry, I will search in the net for the song and download MP3 copy of it'. Accordingly, Rawsan-Ara downloaded the song and in the prize giving ceremony, Mily danced with the song that impressed every one present there.

Incident 5: Those who have written this book for the student of class six, suddenly, have remembered that the name of the super computer has already been mentioned in this book but there is no picture of super computer. Will children get interest in reading this book where the attractive pictures are not available? Writers of this book are not worried regarding the picture because they know that, they will have picture in the large encyclopedia named "wikipedia'. At last they got - you have already seen it.

We can cite thousands of incidents by closing our eyes like incident 6, 7 and 8. You may say, is there any necessity of it? You have already understood that Internet is such type of place where you can find out any type of information of the world. Surely, you are surprised that who has collected lot of information in a particular place. How has he done this? How can anybody of the world use this information?

Answer is very easy. Internet was not invented by a single computer or a man. Internet is the network of millions of computers in the world! Those who are involved with the internet, they can communicate with millions computers if they wish, they also can download the information from any computer. Can you think how big information storehouse it will be if there is little information in each of the millions of computers?

Activity

Divide whole class in some groups. One group makes a list how we can use Internet in education. Another group makes a list how we can use Internet in health matters. Regarding games or recreation another group makes a list -after mixing the entire list you will see that the list has become large!

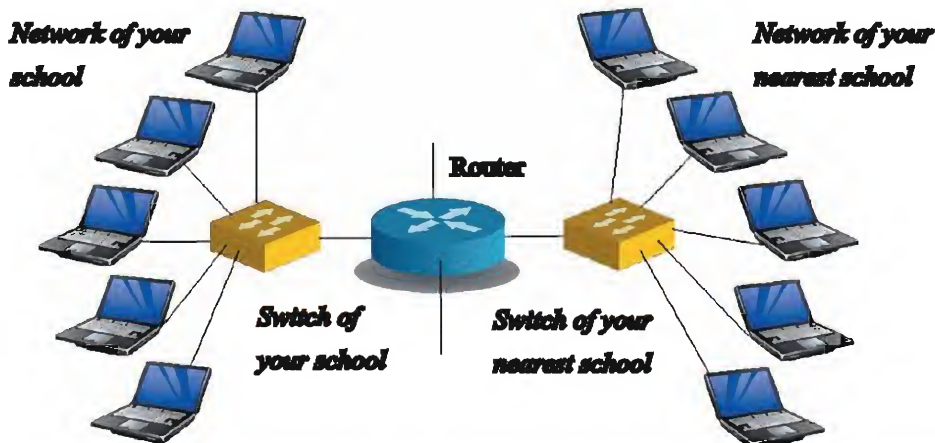


Learnt new: Website, Download, MP3

Lesson 2-3 :Internet Connection and Network-Network Game

In the previous chapter, we have learnt about the various functions of Internet. You are highly interested to know how it can perform its function!

We have told before that Internet is the world wide computer's network. It is needed to discuss, what we mean by network. If there are many computers in your school's computer lab and all computers are connected by a machine called 'switch,' then one computer will communicate with another, and we will say that, your school has a computer network.



Two networks connected with one another to setup a network's network.

Suppose there is another school beside your school. They became surprised to see your computer network. Then they requested their teachers to have a computer network. Their teachers setup a computer network by using a lot of computers. Now the students of that school can connect one computer with another computer.

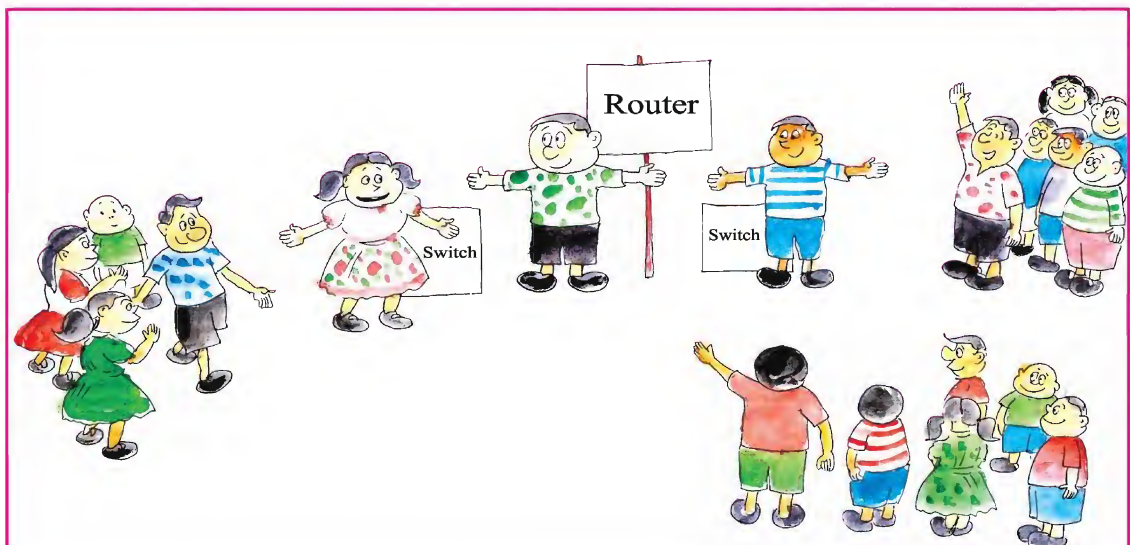
A few days later, you will know that you can communicate all computers' network in your school but you cannot communicate with all computers beside your school. Sometimes, you would like to do so. If you want to do this, you will connect your school's computer network with your nearest school's computer network. For connecting this network, the device which is used is called "Router". It has been drawn in the above picture how your school's computer network is connected with your nearest school's computer network.

Connect your school network with your nearest school network, with your local college network, your medical college network, then it will be network's network. It is the mystery of Internet's invention. The word "Internet" originated from the word "Interconnected Network". Inter from the first word Interconnected and 'Net' from the second word Network together make the word Internet! There were only four computers in the first Internet in 1969. Now, there are billions of computers.

Activity (lesson-2)

There are two networks in the picture of your book. Suppose, there are more two network; draw a picture interconnecting them

Let us play Network-Network game (Lesson 3)



Boys and girls of the class; be network dividing yourselves

For playing this game, one will be router, someone will be switch and the rest of them are computers. Number will be given for each and every computer. Name of the switch will be like - red, blue and green.

Some computers along with red switch will make red network. Similarly, some computers along with blue switch will make blue network, green network will be made by green switch.

One switch will not communicate with other switch directly. If it is needed it will be done by a router.

Computers now start communication with another computer. Write the name of the computer in a paper with which you would like to communicate (as for example green -13 or red -7), send the paper to your network switch.

If switch sees that the paper is the network of itself, it will be sent immediately. If switch sees that paper comes from another network, it will send to the router. The router will send that paper to the network of that switch. Then switch will send it to its computer.

How quickly you can communicate from one computer to another computer do an experiment yourselves.



Learnt New: Network, Switch, Router

Lesson 4 : Website

We have seen that Internet is the network of networks. In this way a lot of computers can connect with one another. When computers are connected with computers then all people want to get its opportunities in many ways. The easiest opportunity is the presentation of personal information in front of others. The processes which is adopted for this purpose is called a 'Website'. If anyone wants to collect information from others, he has to visit website. All information are classified in the website.

As for example, the universities write down the names of all departments, necessary documents are written on the website for getting admission, list of the teachers name and their research topics are also given in their website.

Those who make website try to arrange all necessary information properly. You can collect information easily from there. If you desire, you can read the newspaper from newspaper websites, enjoy music from music websites and enjoy movie from movie websites.

Those who are involved with business, give information of their commodities on their websites. Institutions inform their institutional news. Now-a-days you

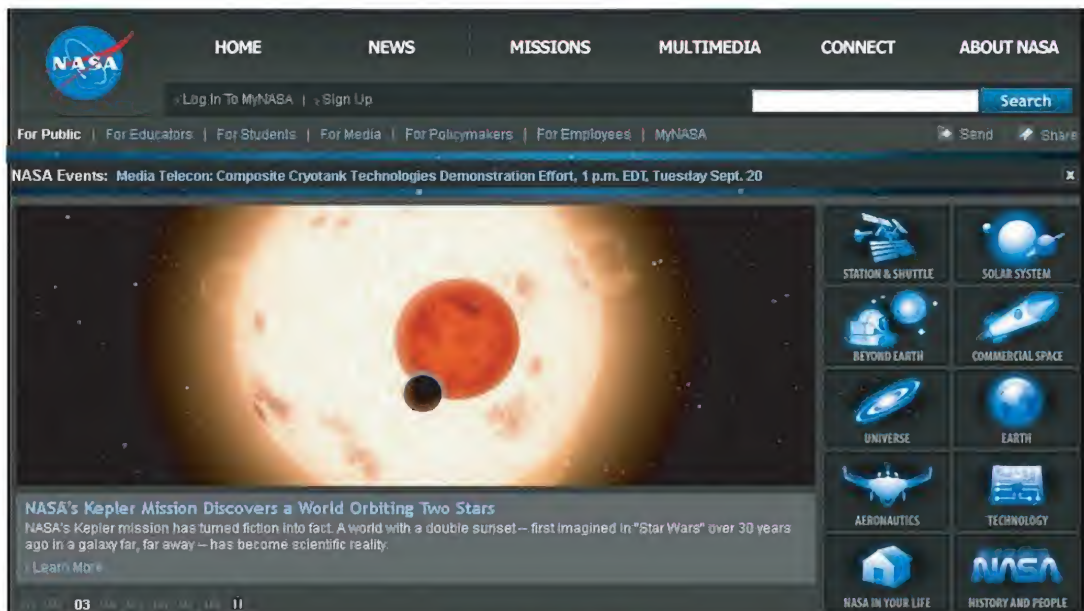
can purchase and sell commodities from websites. Every website has a simple name; you will search the website by this name. Necessary steps are taken for searching the websites easily. That special application software will do that function for you. Its name is "Search Engine". We will learn more about search engine widely in the next chapter.



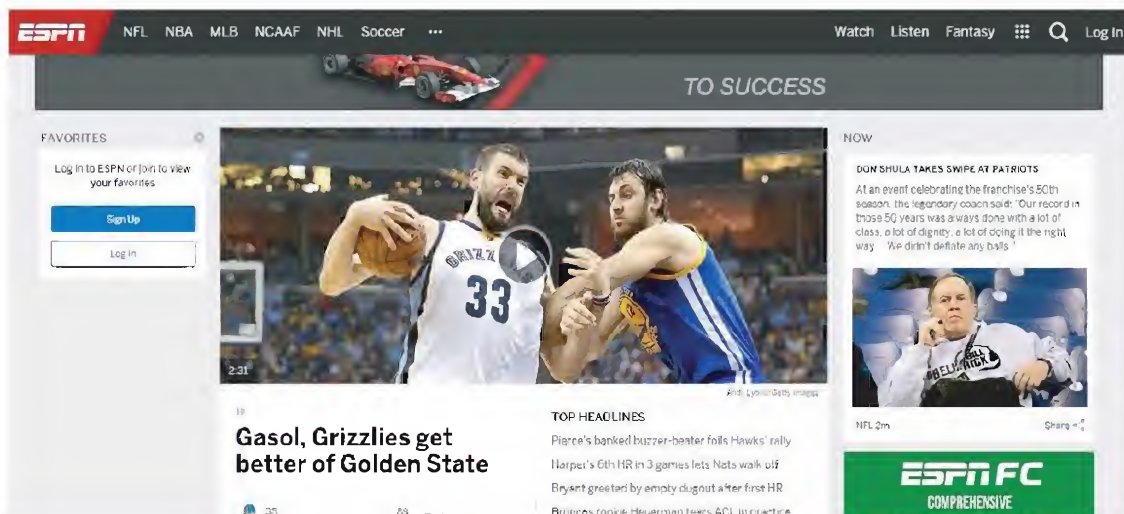
Popular magazine's website



National Web Portal of Bangladesh



NASA's website



Website of ESPN

Activity

Suppose you want to make your school's website. What types of information do you want to preserve there?

Form groups consists of four or five students in each and make the list and present it.



Learnt new: URL, Website

Lessons 5-20 : Web Browser and Search Engine

Web Browser: For watching website in the Internet two things are needed: (one) Internet connection with your computer, (two) a special application software which can detect web and bring information from that.

Think that, the Internet is an imaginary world, websites are the information stores of that imaginary world!. If some one watches the website, it seems to him like visiting the imaginary world!. It is called "Browsing". Browser is the name of special application software used for browsing the website.

At this moment, largely used browsers are: - Internet explorer, Mozilla firefox, Google chrome, Opera, Safari etc.



Popular browser icons are: Mozilla firefox, Internet explorer, Google chrome, Opera, Safari

For moving around the websites or according to the computer language for browsing the web, the action of using a browser is very simple. To open, just you click browser icon twice. If there is any web address on the address bar, it will open automatically. Write the website's name at particular place where you want to visit. For writing the website's address of each browser a distinct place is available on the upper side (this is known as address bar). Just press the enter key after completing your typing. Nothing more! How quickly website will open in front of your eyes, depends on your Internet connection speed.

If you use a browser for the first time, then you will not visit anywhere, because you do not know the address of website! That's why some website addresses are given below, you can type these addresses:

To visit the interesting place of Bangladesh: <http://www.parjatan.gov.bd/>

To visit the largest encyclopedia of the world: <http://www.wikipedia.org/>

To see the liberation war museum: <http://liberationwarmuseum.org/>

To see the NASA's web site: <http://www.nasa.gov/>

To know the occurring of earthquake:

<http://earthquake.usgs.gov/earthquakes/recenteqsww/>

To know the condition of an area from a satellite: <http://maps.google.com/>

Remember that, after typing a website addresses, you will visit a website. But information is classified in different stage of websites - you will try to find out them!

Activity

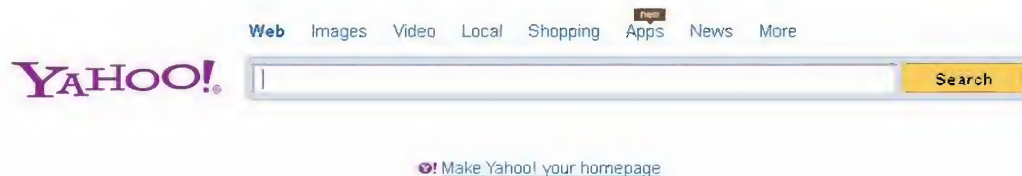
Find out the name of ten interesting places of Bangladesh from website, find out the picture of seven planets from NASA's website. Find out the map of your upazila / thana.

Search Engine : Now you might understood that, Internet is a vast thing where there are millions of computers and thousands of websites. All websites are not good. Some websites have been invented with negligence, some websites are invented for illegal purpose. Since there is no owner of Internet, it is running by itself. If you want to find out the information from Internet by yourself, you will be tired within few minutes. It seem that you are caught in a puzzle. For collecting information you can take help of special application software. The name of that software is search engine. It will bring your desired software. At this moment the world wide popular search engines are:

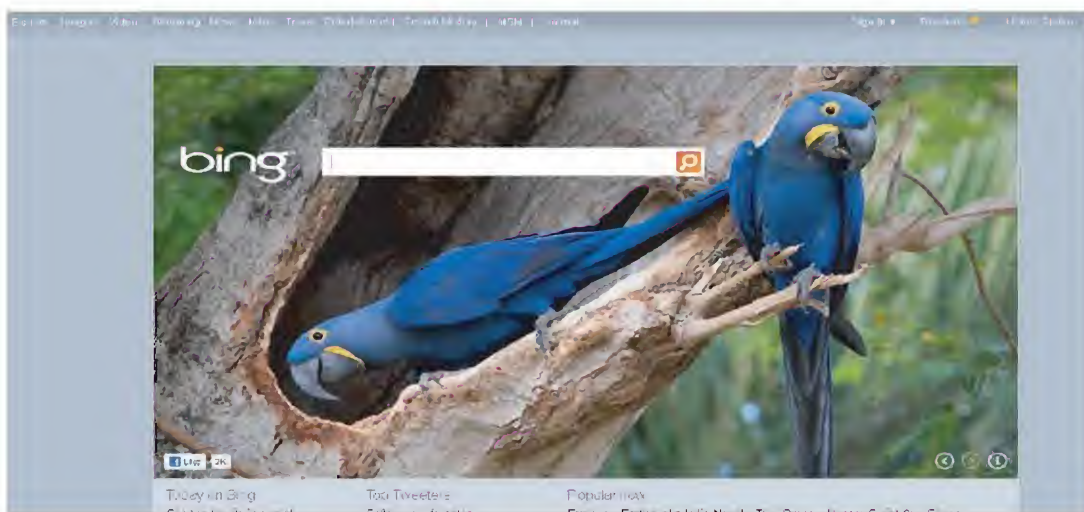
Amazon: <http://www.amazon.com/>

प्राक् अभ्यास | आम्र नवरात्रि | शिवरात्रि :





Starting page of Yahoo search engine



Starting page of the bing search engine

Activity

Internet is very suitable for research. Boys and girls of the class to be divided in threes. Each group will select any one of the following items:

- Planets
- Liberation war of the Bangladesh
- T-Rex
- Spiders
- Snakes
- Cricket
- Football
- Black hole
- Tiger

See your necessary information finding the different list of websites by using any one of the search engines. Write a report on the basis of this information.

Report will contain the following items:

- Title of report
- Name, class, roll, school name
- Preface
- Research result (you can attach picture)
- Conclusion
- Website list from where you collect the information.



Learnt new: Browser, Internet Explorer, Mozilla firefox, Google chrome, Opera, Safari, Search engine, Google, Yahoo, Bing.

Sample Questions

1. What is the name of the largest network which is connected with many computers in the world?
 - a. Mobile network
 - b. Land phone network
 - c. Internet
 - d. Hyperlink
2. In which year Internet was started?
 - a. 1959
 - b. 1969
 - c. 1979
 - d. 1989
3. What is the name of website which is used for finding the information from Internet?
 - a. Web browser
 - b. Search engine
 - c. Hyperlink
 - d. E-mail
4. Which one is called Information Super Highway?
 - a. E -mail
 - b. Mobile phone
 - c. Internet
 - d. Land phone
5. Internet is called "Interconnected Network" because: -
 - i. It is connected with many computers in the world .
 - ii. There is a facility of personal communication with innumerable people in the world .
 - iii. There is an opportunity to communicate with any person of the world

Which one is correct?

 - a. i
 - b. i and ii
 - c. ii and iii
 - d. i, ii and iii

Read the following passage and attempt the question No. 6 and 7:

After long times Deepa comes to Bangladesh with her parents. At the time of coming, her teacher gives her a task to send a report on "Interesting places of Bangladesh".

6. How can Deepa quickly collect the information regarding interesting places of Bangladesh from her residence?
- a. By reading Newspaper
 - b. By reading books regarding Bangladesh
 - c. Using mobile phone
 - d. Using Internet
7. How can Deepa send her report to her teacher within the time easily?
- a. By post
 - b. By Fax
 - c. E-mail
 - d. Mobile Phone
- .



The End

2018

Academic Year

6-ICT

২০২১ সালের মধ্যে ডিজিটাল বাংলাদেশ গড়তে হলে
নতুন প্রজন্মকে প্রস্তুত হতে হবে
- মাননীয় প্রধানমন্ত্রী শেখ হাসিনা

নারী ও শিশু নির্যাতনের ঘটনা ঘটলে প্রতিকার ও প্রতিরোধের জন্য ন্যাশনাল হেল্পলাইন সেন্টারে
১০৯ নম্বর-এ (টোল ফ্রি, ২৪ ঘণ্টা সার্ভিস) ফোন করুন



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